

Project Title: NDN-Lite Over LoRa Network

Project Lead: Kangheng Wu, Kent

Preferred Team Size: 3

Targeted participant

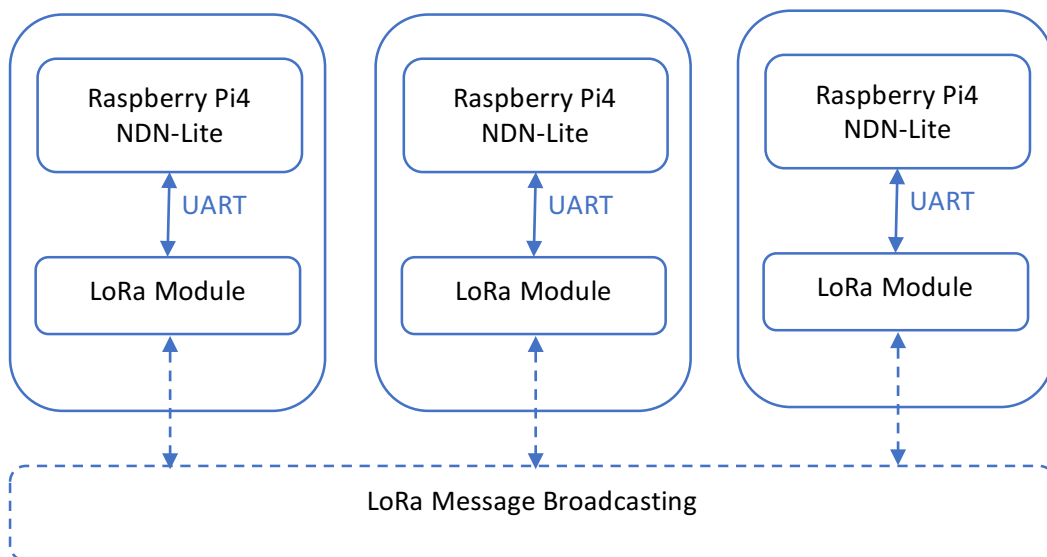
- People new to NDN development

How does your proposal benefit NDN?

- More and more researchers are using NDN on IoT devices; unfortunately lacks public information or tutorials on how to run NDN-Lite over LoRa network
- To add a LoRa adaption interface into the github project, ndn-iot-package-over-posix

Briefly describe the tasks

- Connect the Raspberry Pi4 device and the LoRa module with UART (Universal Asynchronous Receiver/Transmitter). The architecture is as follows.



- Develop a LoRa adaption interface for NDN-Lite
- Run producer and consumer applications in Raspberry Pi4
- Improve NDN-Lite performance in the LoRa network (optional)

Any specific tools or language

- C language
- Project author will provide 3 RaspberryPi-4 devices and 3 LoRa modules

Expected outcomes

- Tutorials on how to run NDN-Lite over LoRa network
- A LoRa adaption interface for NDN-Lite